

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A method for obtaining a ferroelectric composite material, comprising the steps consisting ~~in~~ of:

- coating particles of a ferroelectric compound with a layer of a dielectric; and
- forming a dense composite material by sintering the coated particles,

characterized in that the coating step comprises bringing the particles of the ferroelectric compound into contact with a fluid containing at least one solvent and a precursor of the dielectric, the fluid being maintained under pressure.

2. (Original) The method as claimed in claim 1, characterized in that the fluid is maintained at a temperature above 10°C.

3. (Currently amended) The method as claimed in ~~either of claims 1 and 2~~ claim 1, characterized in that the fluid containing the solvent and the precursor is maintained under supercritical temperature and pressure conditions.

4. (Currently amended) The method as claimed in ~~one of the preceding claims~~ claim 1, characterized in that it further includes a prior step of synthesizing the ferroelectric compound particles, this synthesis being carried out under pressure.

5. (Original) The method as claimed in claim 4, characterized in that the synthesis of the particles is carried out at a temperature above 10°C.

6. (Currently amended) The method as claimed in ~~either of claims 4 and 5~~ claim 4, characterized in that the synthesis is carried out under supercritical temperature and pressure conditions.

7. (Currently amended) The method as claimed in ~~one of the preceding claims~~ claim 1, characterized in that the ferroelectric compound is chosen from the following materials: PbTiO₃, PZT, PMN, LiNbO₃, KNbO₃, KTN, BaTiO₃ and BaTiO₃-SrTiO₃.

8. (Currently amended) The method as claimed in ~~one of claims 1 to 7~~ claim 1, characterized in that the ferroelectric is $\text{Ba}_x\text{Sr}_{1-x}\text{TiO}_3$ or BaTiO_3 .
9. (Currently amended) The method as claimed in ~~one of the preceding claims~~ claim 1, characterized in that the dielectric compound is chosen from oxides or nitrides.
10. (Original) The method as claimed in claim 9, characterized in that the dielectric compound is chosen from the following oxides: Al_2O_3 , SiO_2 , TiO_2 , MgTiO_3 , ZrO_2 , HfO_2 , SnO_2 , SnO_3 and Ta_2O_5 .
11. (Currently amended) The method as claimed in ~~one of the preceding claims~~ claim 1, characterized in that the precursor of the dielectric compound is chosen from the family of lasts, metal and organometallic complexes, especially from the family of acetates, acetylacetonates or alkoxides.
12. (Currently amended) The method as claimed in ~~one of the preceding claims~~ claim 1, characterized in that the solvent comprises CO_2 or NH_3 .
13. (Currently amended) The method as claimed in ~~one of claims 1 to 12~~ claim 1, characterized in that the solvent is chosen from alcohols, water or a mixture thereof.
14. (Currently amended) The method as claimed in ~~one of the preceding claims~~ claim 1, characterized in that the ferroelectric compound particles have dimensions of around 5 nm to 1 μm .
15. (Currently amended) The method as claimed in ~~one of the preceding claims~~ claim 1, characterized in that the dielectric compound coating layer has a thickness of around 1 nm to 10 μm .
16. (Original) A composite material formed from coated ferroelectric particles in a matrix of a dielectric compound, characterized in that the dielectric compound matrix is formed from particles.
17. (Original) The material as claimed in claim 16, characterized in that the size of the particles forming the matrix is between 1 nanometer and a few millimeters.

18. (Currently amended) The material as claimed in ~~either of claims 16 or 17~~ claim 16, characterized in that the ferroelectric particles have dimensions of around 5 nanometers to 1 micron.

19. (Currently amended) The material as claimed in ~~one of claims 16 to 18~~ claim 16, characterized in that the ferroelectric particles are formed from $\text{Ba}_x\text{Sr}_{1-x}\text{TiO}_3$.

20. (Currently amended) The material as claimed in ~~one of claims 16 to 19~~ claim 16, characterized in that the dielectric compound matrix is formed from Al_2O_3 .

21. (New) The method as claimed in claim 2, characterized in that the fluid containing the solvent and the precursor is maintained under supercritical temperature and pressure conditions.

22. (New) The method as claimed in claim 5, characterized in that the synthesis is carried out under supercritical temperature and pressure conditions.